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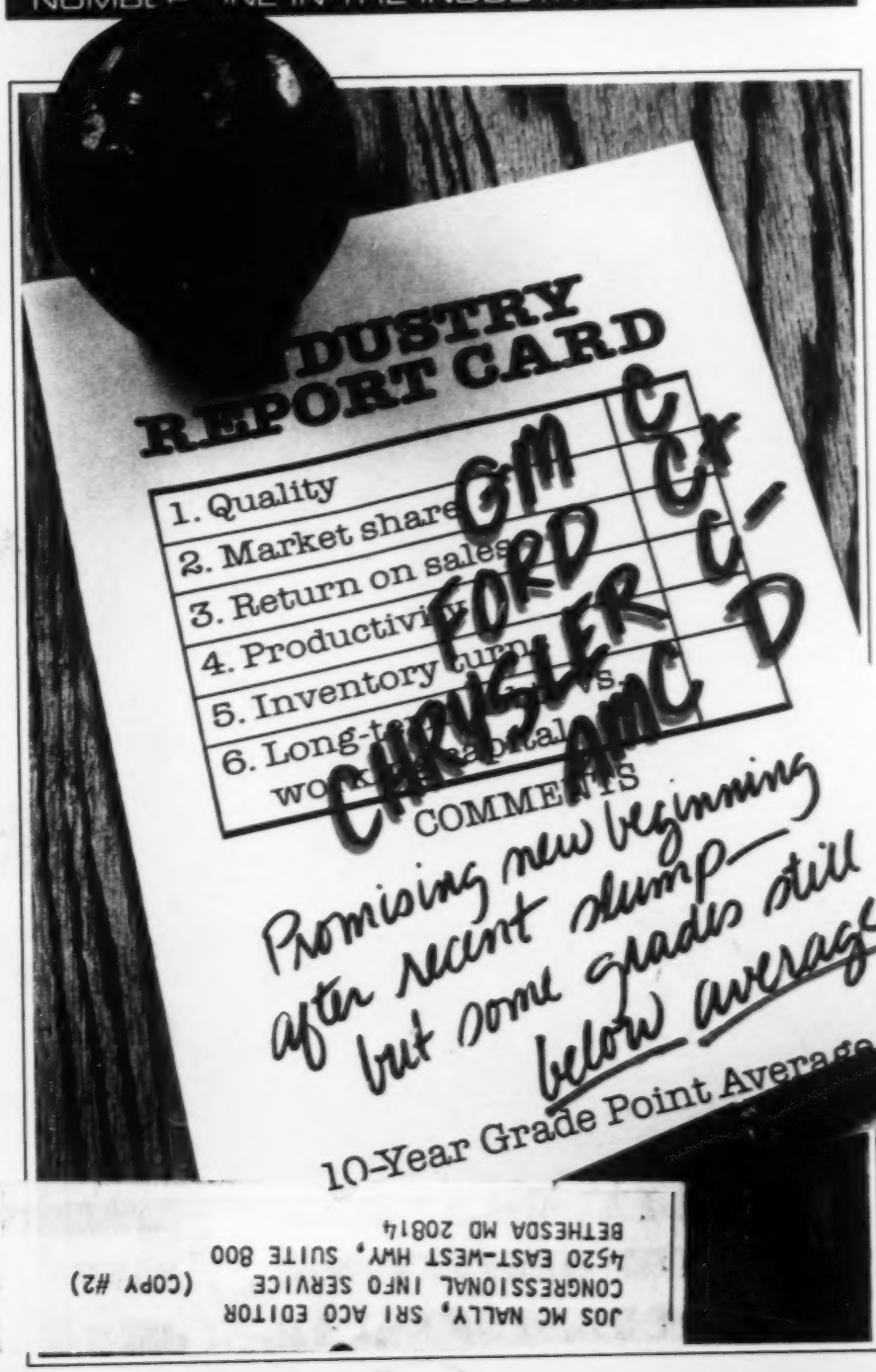

Rating The Carmakers

AUTOMOTIVE REPORT CARD

67th Annual Specifications Issue

Robots Power Saab Engine Assembly

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AUTOMOTIVE INDUSTRIES

April, 1985/Volume 165, Number 4

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NEXT MONTH

100th Anniversary of the Automobile. Special *AI* extravaganza follows the automobile from its patent in 1885 to today.

QUOTABLE

"We're not about to back up because of the Japanese challenge or the Taiwan challenge or the European challenge. This business is just too doggone good and too many people are looking to take it over. So we're here to stay."—Robert Stempel, group VP of GM's Buick-Oldsmobile-Pontiac group.

Company: Chrysler

1980	1983	19
91	91.5	90
8.1%	10.2%	11.

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MR2	USA	FR
	Metric	
Tercel Liftback	USA	FR
	Metric	
Tercel 4wd Wagon	USA	FR
	Metric	
Corolla (fwd)	USA	FR
	Metric	
Corolla GTS Sport Coupe	USA	FR
	Metric	
orolla GTS Sport hatchback	USA	FR
	Metric	
Camry	USA	FR
	Metric	
Celica GT & ST	USA	FR
	Metric	
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	Metric	

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ONE OF THE ABC PUBLISHING COMPANIES

FIRST ANNUAL INDUSTRY REPORT CARD

Who's passing, who's flunking, who's clapping erasers after school—find out as AI grades the US automakers' performance for 1984, the most profitable year in history. Is the industry really doing better than ever?

Company: General Motors

Category	1973	1978	1980	1983	1984	Grade	Comments
Quality	--	--	86.4	82.6	91.2	C	Performing below abilities. Spending time and pocket money buying high-tech answers to quality problems, though apparently lacks overall strategy to integrate these into a "quality first" manufacturing philosophy.
Market Share-US	51.5%	47.3%	41.6%	41.5%	39.1%	F	Has lost 10% of market share in 10 years. Losing the leadership clout that made GM BMOC (Big Marketer On Campus).
Return on Sales	6.7%	5.5%	(1.3%)	5.0%	5.4%	C	Coming back strong from only failing year (1980), but over a percentage point off 1973 levels.
Productivity	11.4	12.0	10.3	11.7	11.5	C	Very little change in 10 years. See remarks under quality. Tsk, Tsk.
Inventory Turns	5.4	6.7	5.7 10.1*	7.0 11.0*	7.3 10.3*	C+	Satisfactory performance overall. Slight wheeze in 1984 though.
Long Term Debt **vs.** **Working Capital**	1.00 8.20	1.00 8.10	1.00 1.60	1.00 1.90	1.00 2.60	B-	True, still not as good as before, but at this point, best in class.
					Overall Grade	C-	

*—Includes work-in-progress, raw materials, supplies.
Return on Sales: Profit as a percent of gross income.
Market Share: Car and truck percentage of domestic market.
Productivity: Vehicles per employee per year.
Inventory Turns: Same as days' supply. The more turns the fewer days' supply.
Long Term Debt vs Working Capital: Measures money on hand versus money owed.

A=Outstanding achievement
B=Moving ahead
C=Going nowhere
D=Falling behind
F=Failing

Company: Ford							
Category	**1973**	**1978**	**1980**	**1983**	**1984**	**Grade**	**Comments**
Quality	--	--	90.5	110.5	113.6	A	Shows tremendous growth in problem-solving. Attacks quality problems from a surprisingly Oriental angle.
Market Share-US	29.8%	26.5%	18.7%	21.6%	22.7%	B	Overall market share has dropped since '73, but improvement since '80 shows good progress.
Return on Sales	3.9%	3.7%	(4.1%)	4.3%	5.5%	B	Good growth pattern since 1980. Sort of puts those ''obscene profits'' in perspective, doesn't it?
Productivity	13.7	13.7	11.5	14.3	15.9	A	Excellent! The slogging, hard work in this area is really paying off.
Inventory Turns	5.3	6.5	5.8 9.6*	7.4 12.2*	8.6 14.2*	B+	Solid improvement over the years.
Long Term Debt **vs.** **Working Capital**	1.00 1.70	1.00 2.70	4.20 1.00	5.40 1.00	1.50 1.00	F	The improvement since 1983 shows steady progress, but this is still a dangerous debt level.
					Overall Grade	B-	

*—Includes work-in-progress, raw materials, supplies.
Return on Sales: Profit as a percent of gross income.
Market Share: Car and truck percentage of domestic market.
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by John McElroy

It looks like 1984 could be remembered as the most profitable year in the history of the American auto industry. And the numbers look even better when reflected in the dismal light of just three years ago. But what wouldn't look good compared to the disastrous 1980-82 depression? So, to see if there really has been an improvement, we decided to take a look at the industry's performance over the last 10 years.

Not Many 'A's

To keep things from turning into a Gordian knot of corporate economics, we chose six categories that measure the overall efficiency of each company. And each company was graded against its own performance during the last decade. Since we subscribe to the 'three Rs' school of economics (reap, reinvest and recoup), it is very difficult to get an 'A' in this class. To do so, the student, er, company, must show outstanding achievement from year to year. But as long as it showed steady improvement, a 'B' was awarded. A company which showed virtually no improvement was given a 'C'. And when it fell behind its previous achievements, it was given a 'D'. Any company which fell behind at an alarming rate was given an 'F'.

We chose 1973 as a base year because that's when the industry posted its best sales. Also, 1973 represents the last year the industry could operate without the disastrous stresses of energy crises, intense foreign competition and excessive government regulations. So any 1984 figures which are better than 1973's represent a big step forward.

Next, we chose 1978 as a comparison year because it represents (until now) the most profitable year in the industry. And 1980 is used as the best representation of the worst of times. It shows just how bad things got, and how much they've improved since then. Next, we have 1983 figures to compare the year-to-year improvements with 1984.

Our different categories are designed to measure the overall efficiency of each company, so that we could negate the effects of inflation and be able to compare one company to another.

The Results

Our **quality** rating is based on J.D. Power's Customer Satisfaction Index which is a survey of consumers who have owned their cars for a year. So

(Continued)

Industry Report Card

Company: Chrysler

Category	1973	1978	1980	1983	1984	Grade	Comments
Quality	--	--	91	91.5	90.3	D	That apple you gave me had a worm in it...better bone up on SPC and defect prevention
Market Share-US	15.6%	11.2%	8.1%	10.2%	11.0%	B-	Has leaped back from what seemed certain expulsion, and progress in building market share since 1980 is very encouraging.
Return on Sales	2.1%	(1.5%)	(18.5%)	5.3%	12.4%	A+	Outstanding! Lee and his gang have gone from delinquents to demagogues in five short years. Even if they had paid a full tax load the results would be fantastic.
Productivity	13.0	13.0	11.0	16.4	18.5	A+	Incredible! But why fluff an already excellent mark by claiming 20 cars per employee?
Inventory Turns	5.6	6.3	4.7 6.4*	8.3 12.8*	9.4 14.2*	B+	Efforts to trim inventories have really taken off since 1980.
Long Term Debt vs. Working Capital	1.00 1.20	1.00 1.10	2.4 bil. 0	1.1 bil. 0	760 mil. 0	F	For a company that was nearly expelled, things look better, but this debt must be reduced.
					Overall Grade	C+	

*—includes work-in-progress, raw materials, supplies.
Return on Sales: Profit as a percent of gross income.
Market Share: Car and truck percentage of domestic market.
Productivity: Vehicles per employee per year.
Inventory Turns: Same as days' supply. The more turns the fewer days' supply.
Long Term Debt vs Working Capital: Measures money on hand versus money owed.

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the 1984 results are based on 1983 models and so on down the line (we put their 1982 results in our 1980 column). Because it was able to show significant improvement from year to year, Ford was awarded an "A" for quality. But this grade was based on Ford's own performance, and not how it compared to other companies.

Actually, Mercedes-Benz has consistently been rated the best by the J.D. Power survey. And though many people in the industry find fault with this survey, we feel the overall trendline is accurate.

We chose **marketshare** as a measure of the company's long-term strength. Obviously, whoever gets a bigger share of the market on an ongoing basis must be doing something right to keep those customers coming back and attract new ones.

Underachieving GM

We have to admit it was a shock to learn that General Motors has lost 10% of its marketshare (car and truck) over the last 10 years. Ford and Chrysler have also lost much of their market too, but at least they have improved their positions since 1980. General Motors continues to fall behind.

Return on sales measures the percent of money a company got to keep out of all the money it took in during the year. This is one category where the domestic companies outperform all foreign automakers, even Mercedes-Benz and Toyota. Keep in mind that Ford and Chrysler didn't pay any taxes in 1983 or 1984, so this helped them score higher.

Nonetheless, Chrysler's return on sales for 1984 is so outstanding that it still would have earned an 'A' even if the figure had been cut in half.

Our measure of **productivity** looks at how many cars and trucks a company builds in a given year, and how many employees (blue collar and white collar) it needed to build them. The resulting figure is: vehicles per employee per year. A word of caution

Company: American Motors							
Category	**1973**	**1978**	**1980**	**1983**	**1984**	**Grade**	**Comments**
Quality	--	--	81	76	51.5	F	A "new beginnings" lecture seems appropriate right about now.
Market Share US and Canada	3.5%	2.3%	2.1%	2.7%	2.8%	C	Some improvement since 1980, but is this because of Jeep sales, not cars?
Return on Sales	4.3%	1.4%	(7.7%)	(4.5%)	.36%	C+	Good turnaround since '80, but, again, are strong Jeep sales the reason?
Productivity	18.2	17.1	18.5	16.8	18.1	C	Not much change since '73, but you've regained much of the productivity lost since '83.
Inventory Turns	7.2	6.4	5.8	6.3 12.0*	7.6 15.3*	C	Best turns in class but not much improvement in 10 years
Long Term Debt vs. Working Capital	1.00 2.78	1.00 1.27	1.00 1.28	394 mil. 1.00	590 mil. 1.00	F	This debt burden must be reduced.
					Overall Grade	D	

*—Includes work-in-progress, raw materials, supplies.
Productivity: Vehicles per employee per year.
Return on Sales: Profit as a percent of gross income.
Inventory Turns: Same as days' supply. The more turns the fewer days' supply.
Market Share: Car and truck percentage of domestic market.
Long Term Debt vs Working Capital: Measures money on hand versus money owed.

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here. Though Chrysler has the highest figure for productivity, for proper comparison you must remember that it also outsources 70% of its components, while Ford outsources about 50% and GM only 30%. Nonetheless, even if we factor in outsourcing, Chrysler still outperforms GM, though Ford then overtakes Chrysler.

Astounding Toyota

Despite Ford's and Chrysler's productivity improvements, however, they still are not competitive on a worldwide basis. Toyota, for example, makes 66.7 cars per employee per year, with a level of outsourcing that is the same as Chrysler's.

Inventory turns are a measure of how well a company is implementing a just-in-time (JIT) production system. The more turns, the more effective the JIT system. And since a more effective JIT system positively affects quality and productivity, it also helps measure a company's manufacturing efficiency. Note that the post-1980 figures look better than the pre-1980 figures. Before 1980 the companies lumped all their inventory into one figure. But now they break it into work-in-process (WIP), raw materials and supplies, and finished goods.

But finished goods really don't have anything to do with JIT production. To provide a complete comparison, total inventory turns less finished goods are added in parenthesis. All the domestic automakers have improved their inventory turns, but they are still no match for Toyota which has an astounding 90 turns a year!

Long term debt versus working capital is used to show how leveraged a company is, which helps demonstrate if it can continue capital expenditures without having to borrow the money. General Motors easily outperformed its domestic rivals in this category—Ford and Chrysler are still in debt despite recent improvements.

Some readers may wonder why Chrysler has no working capital, even though the company boasts of a war chest holding $1.7 billion in cash and securities. This is because Chrysler also owes $2.3 billion in accounts payable. If those accounts were called due tomorrow, that cash would disappear.

Nonetheless, Chrysler (and Ford) are quickly reducing their long-term debt. But to become totally competitive on a worldwide basis, all the domestic manufacturers have a long way to go to catch Toyota, which has absolutely no long-term debt and finances all its expenditures from its working capital. ■

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The End of the Quotas and the US Economy

by Thomas F. O'Grady

A modest relaxation of the Japanese Voluntary Restraint Agreement, by an additional 200,000 cars each year, could decrease nominal GNP by $9.77 billion and real GNP by $2.7 billion. Now that the VRA has been allowed to expire, the impact on the US economy and specifically the auto industry seems an appropriate topic for the April issue of *Automotive Industries.*

The impact of the Japanese restraint relaxation on the US economy is not insignificant. In a recent study, an increase in imports of 200,000 units is assumed in the first year after the agreement expires. In the second and third years, increases of 400,000 and 600,000 are expected.

By the end of 1987, the already burgeoning trade deficit would be increased by over $6 billion. Industrial production would fall by 0.3%.

Employment would suffer by 150,000 jobs. US auto producers have increased employment from about 657,000 in 1983 to 720,000 in 1985. Over the next three years, it would probably fall by 50,000 to 70,000 jobs, the remainder of the drop being in auto supplier and other auto-related jobs.

Real prices would decline by 4% to 6%, the decrease mainly being on the smaller cars that are directly competitive with the Japanese. A real price decrease would primarily be brought about by the importation of both lower-priced small cars and current-priced models with fewer options. Prices would decrease by a lesser amount on larger cars.

According to a recent study, the following carlines and plants would bear the brunt of increased Japanese import penetration: AMC/Renault's Alliance/Encore built in Kenosha, WI; Chrysler's Omni/Horizon and Reliant/Aries built in St. Louis, MO, Newark, DE and Belvidere, IL; Ford's Escort and Lynx made in Edison, NJ and Wayne, MI; the GM Skyhawk, Chevette, Cavalier, Citation and Firenza built in Lakewood, GA, Jonesville, WI and Leeds, MO; and the VW Golf made in New Stanton, PA. Depending on the competitiveness of individual carlines and companies, each plant would be affected differently, but certainly outsourcing by domestics will increase and, as local content declines, US suppliers will be adversely affected. The relaxation of auto quotas would probably see increased allotments to the beleaguered smaller Japanese companies which were late in coming to the US market and were planning and organized to sell more autos than their current allotments.

Thomas F. O'Grady is the director of the Chase Econometrics Automotive Service. He provides market research and market projections to leading companies worldwide.

The Japanese have the production capability to export a substantially greater number of cars than they have been allowed—as many as 700,000 units, seasonally adjusted at annual rates, within 18 months. However, even though the VRA will soon be allowed to expire, they will likely continue some form of self restraint, probably administered through the Ministry for International Trade and Industry (MITI). Fear of a protectionist reaction will moderate potential import increases. A 10% to 15% increase would not be considered excessive, and may prove necessary for the smaller Japanese companies.

With smaller overall allotments permitted, Isuzu, Suzuki and Subaru have the greatest potential for gain. In the case of Isuzu and Suzuki this is important to ensure an adequate marketing and financial presence in the US.

Simultaneous with the lifting of the restraints, Daewoo of Korea will export 100,000 cars to the US and Hyundai, said to be opening US dealerships in September, will also be exporting about 100,000 cars. In light of this Korean deluge, it must be difficult for MITI to justify the current allotments to Japanese companies with less than 100,000 units. Current allotments are 75,800 for Subaru, 50,000 for Isuzu and 17,000 for Suzuki.

The current stability of the auto market in Japan and tight restraints on the European market make the US market very attractive for the Japanese. Expiration of the VRA makes it even more so. ■

EFFECT OF QUOTAS' END ON THE US ECONOMY

	1985				1986				1987			
	1st QTR	2nd QTR	3rd QTR	4th QTR	1st QTR	2nd QTR	3rd QTR	4th QTR	1st QTR	2nd QTR	3rd QTR	4th QTR
GNP (billions)	$3830.70	$3913.47	$3985.44	$4041.73	$4090.23	$4167.41	$4248.98	$4339.53	$4437.0	$4523.22	$4612.28	$4709.52
*Change (billions)	—	-$.27	-$.72	-$1.43	-$2.10	-$3.0	-$3.80	-$4.63	-$5.61	-$6.92	-$8.63	-$9.77
Real GNP (billions 1972 $)	$1674.49	$1690.52	$1704.94	$1709.38	$1714.56	$1728.20	$1744.56	$1760.25	$1778.77	$1792.59	$1807.45	$1823.27
*Change (billions)	—	-$.09	-$.25	-$.49	-$.70	-$.97	-$1.18	-$1.40	-$1.66	-$2.01	-$2.36	-$2.67
Trade Deficit (current dollars)	-$103.18	-$100.63	-$109.44	-$111.01	-$118.36	-$121.25	-$126.93	-$130.16	-$132.78	-$137.44	-$141.67	-$147.23
*Change (billions)	—	-$.24	-$.63	-$1.12	-$1.64	-$2.32	-$3.06	-$3.59	-$4.15	-$4.91	-$5.68	-$6.27

*Change denotes the difference between what would happen with and without the relaxations of the VRA.

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